

Mountain precipitation was below to well below average during January with most areas across southern Montana receiving less than half their average amounts. Cumulative precipitation since October 1 stands at near to below average across the state. Snowpack conditions have deteriorated significantly across southwestern, central and south-central Montana. Snowpacks are now near to below normal throughout the state. Most irrigation reservoirs report near to above average storage. Streamflow forecasts have been reduced to reflect the below average snow and precipitation accumulations during January and are now expected to be near to below average on most streams. Surface Water Supply Indexes (SWSI) vary from -1.9 to +0.4 with most basins having indexes in the -1.5 to -0.5 range.

SNOWPACK

Mountain snowpacks across the state have deteriorated significantly since the first of January due to the unseasonably dry and mild weather patterns. Snowpacks are generally below to well below average at the lower elevations and near to a little below average at the higher elevations. West of the Divide, basin-wide snowpack conditions are generally near to a little below average in the 90 to 105 percent of average range. One exception is in the Yaak River Drainage where below average conditions are reported. East of the Divide, near to a little below average snowpacks are reported in the St. Mary, Milk, Sun, Teton and Marias River Drainages in north-central Montana and in the Big Hole, Ruby and Boulder River Basins in the southwestern part of the state. Elsewhere, snowpack conditions generally range from about 80 to 90 percent of average. Snowpacks in the Lower Yellowstone tributary basins in Wyoming are in the the 90 to 95 percent of average range except in the Bighorn River Basin which has 80 percent of average snowpack.

PRECIPITATION

MOUNTAIN AREAS - Mountain precipitation during January was below to well below average throughout the state. Below average amounts were recorded in the Kootenai and Flathead Basins in northwestern Montana and in the headwater areas of the St. Mary and Milk River Basins in north-central Montana. Elsewhere, mountain precipitation was well below average for the month with the lowest amounts being reported in the southwestern and south-central areas of the state. The Jefferson, Madison, Gallatin and Upper Yellowstone Basins all recorded less than 40 percent of average amounts. Cumulative precipitation totals since October 1 are generally near to a little below average with most basins reporting 85 to 95 percent of average amounts.

VALLEY AREAS - January was very dry at the low elevations. This was the second month of extremely dry conditions. Precipitation was below average at all reporting stations with the exception of Sidney which received above average snowfall. Roundup and Hardin reported zero precipitation for the month. Most stations received less than half of the January average.

RESERVOIRS

Most irrigation reservoirs in the state report near to above average for February 1. Storages in Como, Lima, Clark Canyon, Middle Creek, Martinsdale, Smith River and the combined storage of the eight Mission Valley Reservoirs are in the 60 to 80 percent of average range. Storage levels in the larger multipurpose reservoirs range from about 80 to 105 percent of average except Flathead Lake which reports only 65 percent of average storage.

STREAMFLOW

Most streamflow forecasts have been reduced from the January 1 projections as a result of below to well below average precipitation amounts over the state during January. The largest reduction occurred in southwestern and south-central Montana where many forecasts were reduced 15 to 25 percent. Spring and summer streamflows are now expected to be near or below average across the state. West of the Divide, streamflow forecasts are generally in the 75 to 85 percent of average range on the Bitterroot, Upper and Lower Clark Fork and smaller tributaries to Kootenai River. The Kootenai Main Stem is forecast to have near average flows. Forecasts on the Flathead River Basin are in the 85 to 95 percent of average range. East of the Divide, spring and summer streamflows are generally expected to be in the 80 to 90 percent of average range on the St. Mary, Milk, Smith, Judith, Musselshell, Shields, Gallatin, Big Horn and Upper Yellowstone Main Stem Rivers. The remainder of the basins are generally forecast to have 90 to 100 percent of average flows.

SOIL MOISTURE

Little or no snowmelt has occurred in the mountainous areas leaving soil moisture conditions unchanged from that reported a month ago. In general, mountain soil moisture conditions are below to well below average across most of the state. The exceptions are in north-central and south-central Montana where *7

SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a measure of available surface water supplies during the spring and summer months. The index ranges from -4.0 to +4.0. A SWSI of -4.0 represents an extremely dry situation, 0 is near a normal situation and +4.0 represents an extremely wet situation. The SWSI provides a scale to evaluate various levels of wetness or dryness and water supply conditions across the state. The SWSI takes into account snowpack, mountain precipitation, soil moisture and available reservoir storage.

----- SWSI Scale

SWSI	DESIGNATION
+3.0 to +4.0	Extremely wet
+2.0 to +3.0	Moderately wet
+1.0 to +2.0	Slightly wet
-1.0 to +1.0	Near average
-1.0 to -2.0	Slightly dry
-2.0 to -3.0	Moderately dry
-3.0 to -4.0	Extremely dry

Current SWSI's for the major river basins in Montana are as follows. SWSI as of February 1, 1992 for the remainder of the 1992 irrigation season.

-3.5	Yellowstone River
-3.5	Yellowstone River
-3.5	Missouri River above Canyon Ferry
-3.5	Missouri River below Canyon Ferry
-3.5	Smith River
-3.5	San River
-3.5	Teton River
-3.5	Blackfoot/Bozeman Creeks
-3.5	Fortune River
-3.5	Snake River
-3.5	Windermere River above Ft. Tark
-3.5	Windermere River below Ft. Tark
-3.5	Milk River (SWSI value)
-3.5	Milk River (other values)
-3.5	Yellowstone River above Livingston
-3.5	Shields River
-3.5	Snake River (Yellowstone)
-3.5	Missouri River
-3.5	Rock/Red Lodge Creeks
-3.5	Clark Fork River
-3.5	Yellowstone River above Highgate River
-3.5	Highgate River below Highgate Lake
-3.5	Little Highgate River
-3.5	Yellowstone River below Highgate River
-3.5	Snake River
-3.5	Snake River

SWSI	Basin
-0.6	Kootenai River at Ft. Steele (Kootenay in Canada)
-1.2	Tobacco River
-1.4	Kootenai Ft. Steele to Libby Dam
-0.5	Kootenai River below Libby Dam
-0.6	Fisher River
-1.8	Yaak River
-1.2	N. Fk. Flathead River
-0.6	Middle FK Flathead River
-0.7	S. Fk. Flathead River
-0.8	Flathead River at Columbia Falls
-1.3	Stillwater/Whitefish Rivers
-0.6	Swan River
-1.0	Flathead River at Polson
-1.2	Mission Valley
+0.0	Little Bitterroot River
-0.7	Clark Fork River above Rock Creek
-0.7	Blackfoot River
-1.0	Bitterroot River
-0.7	Clark Fork River above Missoula
-0.8	Clark Fork River below Bitterroot River
-0.9	Clark Fork River below Flathead River
-1.7	Beaverhead River
-0.7	Ruby River
-0.4	Big Hole River
-0.6	Boulder River (Jefferson)
-0.7	Jefferson River
-0.8	Madison River
-1.2	Gallatin River
-0.8	Missouri River above Canyon Ferry
-0.9	Missouri River below Canyon Ferry
-1.4	Smith River
-0.5	Sun River
-1.0	Teton River
+0.4	Birch/Dupuyer Creeks
-0.3	Marias River
-0.1	Musselshell River
-0.6	Missouri River above Ft. Peck
-0.8	Missouri River below Ft. Peck
-1.5	Milk River (USBR users)
-1.9	Milk River (other users)
-1.6	Yellowstone River above Livingston
-0.7	Shields River
-0.8	Boulder River (Yellowstone)
-1.1	Stillwater River
-1.2	Rock/Red Lodge Creeks
-1.3	Clarks Fork River
-1.4	Yellowstone River above Bighorn River
-1.0	Bighorn River below Bighorn Lake
-1.0	Little Bighorn River
-1.2	Yellowstone River below Bighorn River
-1.0	Tongue River
+0.5	Powder River

KOOTENAI RIVER BASIN in Montana as of February 1, 1992

Mountain precipitation during January was about 85 percent of average. Cumulative precipitation since October 1 now stands at about 85 percent of average as well. Basin-wide snowpack conditions are near to a little below average while the Yaak River Basin is below average. Soils under the snowpack are drier than normal. Storage in Lake Koocanusa is near average. Streamflows for the spring and summer period are forecast to be below average on the tributary streams and near average on the Kootenai Main Stem. The Surface Water Supply Indexes (SWSIs) range from -0.5 on the Kootenai below Libby Dam to -1.8 on the Yaak River Drainage.

(1.2)							
APR-JUL	4210	5120	5520	36	4210	5120	5779
APR-SEP	4920	5900	6480	44	4920	5900	6779
FURNACE RE LIBBY							
APR-JUL	130	165	190	31	130	160	234
APR-SEP	155	182	205	32	130	160	234
YAK RE YAK							
APR-JUL	230	240	270	77	400	450	483
APR-SEP	320	335	390	77	475	470	500
KOOTENAI at Lewistown (1.7)							
APR-JUL	5250	6250	6830	46	7400	8530	9190
APR-SEP	6010	7320	7910	56	8300	9810	10730

* 50%, 70%, 90%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 5% Chance of Exceeding are generally 14 and 25% antecedent levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - February 1, 1992

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
TOBACCO nr Eureka							
APR-JUL	82	97	108	81	119	134	133
APR-SEP	89	107	119	81	131	149	147
KOOTENAI bl Libby Dam (1,2)							
APR-JUL	4230	5120	5530	96	5940	6840	5779
APR-SEP	4950	6000	6480	96	6960	8010	6772
FISHER nr Libby							
APR-JUL	130	166	190	81	215	250	234
APR-SEP	148	182	205	82	230	260	250
YAAK nr Troy							
APR-JUL	290	340	370	77	400	450	483
APR-SEP	310	355	390	77	425	470	505
KOOTENAI at Leonia (1,2)							
APR-JUL	5230	6360	6880	96	7400	8530	7199
APR-SEP	6010	7320	7910	96	8500	9810	8275

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

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KOOTENAI RIVER BASIN in Montana
Reservoir Storage (1000AF) End of January

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Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LAKE KOOCANUSA	5748.0	2363.0	2192.0	2381.0

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KOOTENAI RIVER BASIN in Montana
Watershed Snowpack Analysis - February 1, 1992

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Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
EAST KOOTENAI in B.C.	19	71	100
KOOTENAI MAINTSTEM in MT	16	70	90
TOBACCO	4	62	94
FISHER	1	63	93
YAAK	8	78	88
KOOTENAI in MT	22	72	89
KOOTENAI ab Bonners Ferry	41	71	94

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FLATHEAD RIVER BASIN as of February 1, 1992

Mountain precipitation during January was below average. Cumulative precipitation since October 1 is a little below average. Snowpack conditions deteriorated somewhat during the month and most basins now report near to a little below average snowpack. Low elevation snowpacks are generally below average while at the higher elevations near average conditions exist. Mountain soils remain drier than normal. Storage in Hungry Horse Reservoir and the combined storage of the eight Mission Valley Reservoirs are below average while the four Camas Reservoirs report well above average combined storage. Spring and summer streamflows are forecast to be near to below average throughout the basin. The Surface Water Supply Indexes (SWSIs) range from -0.6 on the Middle Fork Flathead River Basin to -1.3 on the Stillwater/Whitefish Basin.

APR-JUL	1670	1770	1930	91	1920	2350	2051
APR-SEP	1570	1890	2030	91	1770	2470	2154

FLATHEAD at Columbia Falls (2)

APR-JUL	4000	4650	4950	91	1300	5750	5481
APR-SEP	3810	4330	5440	91	4050	7090	5263

STILLWATER at Whitefish

APR-JUL	132	153	167	88	181	205	189
APR-SEP	157	179	185	89	200	220	204

WHITEFISH at Kalispell

APR-JUL	70	87	90	87	98	110	104
APR-SEP	51	53	101	87	109	121	116

SEAS at Higgins

APR-JUL	470	473	515	84	155	610	589
APR-SEP	480	540	581	85	430	730	589

FLATHEAD at Missoula (1.7)

APR-JUL	4430	5760	5490	87	2040	6890	4390
APR-SEP	4290	5330	4790	87	1000	7890	4928

4, 50%, 75%, 90%, and 100 chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1911-1990 base period.

(1) - The values listed under the 10% and 90% chance of exceeding are currently 5% and 95% exceedance levels.

(2) - The value in actual flow - actual flow may be affected by upstream water management.

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FLATHEAD RIVER BASIN
Streamflow Forecasts - February 1, 1992

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	<==== Drier ==== Future Conditions ==== Wetter >====						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
NF FLATHEAD nr Columbia Falls							
APR-JUL	1240	1350	1430	86	1510	1630	1662
APR-SEP	1160	1430	1590	87	1760	2020	1836
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MF FLATHEAD nr West Glacier							
APR-JUL	1310	1470	1580	96	1690	1850	1638
APR-SEP	1430	1600	1720	96	1840	2010	1788
=====							
SF FLATHEAD nr Columbia Fls (1,2)							
APR-JUL	1470	1770	1910	93	2050	2350	2051
APR-SEP	1570	1890	2030	93	2170	2490	2184
=====							
FLATHEAD at Columbia Falls (2)							
APR-JUL	4200	4660	4980	91	5300	5760	5482
APR-SEP	3810	4830	5440	91	6080	7090	5960
=====							
STILLWATER nr Whitefish							
APR-JUL	132	153	167	88	181	205	189
APR-SEP	148	170	185	89	200	220	209
=====							
WHITEFISH nr Kalispell							
APR-JUL	70	82	90	87	98	110	104
APR-SEP	81	93	101	87	109	121	116
=====							
SWAN nr Bigfork							
APR-JUL	420	475	515	88	555	610	583
APR-SEP	480	540	585	88	630	690	665
=====							
FLATHEAD nr Polson (1,2)							
APR-JUL	4430	5280	5660	89	6040	6890	6390
APR-SEP	4290	5330	6150	89	7000	7960	6926

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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

FLATHEAD RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
CAMAS (4)	45.2	30.2	25.9	19.4
MISSION VALLEY (8)	100.0	26.5	22.6	36.2
HUNGRY HORSE	3451.0	1984.0	2406.0	2362.0
FLATHEAD LAKE	1791.0	717.0	1128.0	1095.0

FLATHEAD RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
NORTH FORK FLATHEAD	13	63	92
MIDDLE FORK FLATHEAD	7	67	95
SOUTH FORK FLATHEAD	8	73	104
STILLWATER-WHITEFISH	5	64	90
SWAN	10	75	100
MISSION VALLEY	5	73	94
LITTLE BITTERROOT-ASHLEY	5	62	90
JOCKO	7	78	99
FLATHEAD	41	69	96

UPPER CLARK FORK RIVER BASIN as of February 1, 1992

Mountain areas received about half of average precipitation amounts during January. Cumulative precipitation since October 1 is now a little below average. Snowpack conditions generally range from below to well below average at the mid- and low elevations to near average at the high elevations. Basin-wide snowpacks range from near average on the Clark Fork above Flint Creek to a little below average elsewhere. Soils under the snowpack remain drier than normal. Reservoir storage levels are near average. Spring and summer streamflows are forecast to be below average throughout the basin. The Surface Water Supply Indexes (SWSIs) for the Blackfoot, Clark Fork above Rock Creek and Clark Fork above Missoula River Basins are all -0.7.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<==== Drier ==== Future Conditions ==== Wetter =====>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
MOULTON RES inflow (million gal.)							
APR-JUN	98	152	188	89	225	280	212
APR-JUL	104	164	205	88	245	305	234
WARM SPRINGS CK at Anaconda (2)							
APR-JUL	20	27	32	84	37	44	38
APR-SEP	26	34	39	83	45	53	47
LITTLE BLACKFOOT nr Garrison							
APR-JUL	11.0	45	68	82	91	125	83
APR-SEP	13.0	50	74	83	99	135	89
FLINT CK nr Southern Cross (2)							
APR-JUL	5.2	8.7	11.0	77	13.3	16.8	14.2
APR-SEP	5.1	9.4	12.3	74	15.2	19.5	16.7
FLINT CK bl Boulder Ck							
APR-JUL	23	36	45	79	54	67	57
APR-SEP	30	46	57	78	68	84	73
LOWER WILLOW CK RES inflow							
APR-JUL	3.9	7.8	10.5	75	13.2	17.1	14.0
APR-SEP	4.5	8.5	11.3	76	14.1	18.1	14.8
MF ROCK CK nr Philipsburg							
APR-JUL	35	44	51	77	58	67	66
APR-SEP	40	51	58	78	65	76	74
ROCK CK nr Clinton							
APR-JUL	157	197	225	76	255	295	296
APR-SEP	181	225	255	77	285	330	333
NEVADA CK nr Finn							
APR-JUL	5.4	11.1	14.9	78	18.7	24	19.1
APR-SEP	6.2	12.1	16.2	77	20	26	21
CLEARWATER nr Clearwater							
APR-JUL	116	132	143	83	154	170	172
APR-SEP	123	140	151	83	162	179	181
BLACKFOOT nr Bonner							
APR-JUL	550	650	720	86	790	890	835
APR-SEP	620	730	805	87	880	990	926

CLARK FORK ab Milltown

APR-JUL	260	410	515	79	620	770	652
APR-SEP	320	485	600	79	715	880	755

CLARK FORK ab Missoula

APR-JUL	860	1090	1240	83	1390	1620	1487
APR-SEP	995	1240	1410	84	1580	1830	1681

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	***** Usable Storage Last Year	***** Average
GEORGETOWN LAKE	31.0	29.5	29.2	27.1
LOWER WILLOW CREEK	4.9	1.4	1.6	1.5
NEVADA CREEK	12.6	3.9	----	4.3

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CLARK FORK ab FLINT CREEK	18	123	99
FLINT CREEK	8	117	91
ROCK CREEK	1	94	94
CLARK FORK ab BLACKFOOT	27	115	96
BLACKFOOT	16	81	93
UPPER CLARK FORK	40	96	94

* 50%, 70%, 90%, and 100% chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

the average is computed for the 1960-1990 base period.

(1) - The values listed under the 10% and 50% Chances of Exceeding are actually 10 and 50% exceedance levels.

(2) - The value is actual flow - actual flow may be affected by upstream water management.

BITTERROOT RIVER BASIN as of February 1, 1992

Mountain areas received about half of average precipitation amounts during January. Cumulative precipitation since October 1 is about 95 percent of average. Basin snowpacks range from about 90 to 95 percent of average. The high elevation areas have near average snowpacks while the low elevations generally have below average. Soils under the snow remain drier than normal. Storage in Lake Como is well below average. Spring and summer streamflows are now forecast to be below average. The Surface Water Supply Index (SWSI) for the Bitterroot River is -1.0.

BITTERROOT RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
WF BITTERROOT nr Conner (2)							
APR-JUL	78	103	120	79	137	162	152
APR-SEP	84	110	128	77	146	172	166
BITTERROOT nr Darby							
APR-JUL	275	345	395	80	445	515	491
APR-SEP	320	390	440	81	490	560	540
ROCK CK nr Darby (2)							
APR-JUL	50	59	64	81	70	78	79
APR-SEP	53	61	67	81	73	81	83
SKALKAHO CK nr Hamilton							
APR-JUL	26	32	36	78	40	46	46
APR-SEP	31	37	42	79	47	53	53
BURNT FORK CK nr Stevensville (2)							
APR-JUL	15.0	20	23	79	26	31	29
APR-SEP	19.0	24	28	82	32	37	34
BITTERROOT at Missoula							
APR-JUL	800	955	1060	81	1170	1320	1301
APR-SEP	895	1060	1170	83	1280	1440	1418

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

BITTERROOT RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
PAINTED ROCKS LAKE	31.7	0.5	1.1	12.7
COMO	34.9	7.1	12.4	11.1

BITTERROOT RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
WEST FORK BITTERROOT	4	103	94
EAST SIDE BITTERROOT	2	100	98
WEST SIDE BITTERROOT	6	86	92
BITTERROOT	12	92	93

LOWER CLARK FORK RIVER BASIN as of February 1, 1992

Mountain precipitation was about 65 percent of average during January. Cumulative precipitation since October 1 now stands at about 90 percent of average. Basin snowpacks in the larger upstream tributaries are near to a little below average while the smaller tributaries of the Clark Fork River below Missoula generally report a little below average snowpacks. Storage in Noxon Reservoir is near average. Streamflows for the spring and summer period are now forecast to be below average throughout the basin. The Surface Water Supply Indexes (SWSIs) are -0.8 for the Clark Fork below Missoula and -0.9 for the Clark Fork below the Flathead River.

CLARK FORK at Missoula (1.1)							
APR-JUL	1640	1640	1750	82	2170	2670	2780
APR-SEP	1250	2090	2560	81	3130	3280	3290
CLARK FORK at Flathead (1.2)							
APR-JUL	1910	2510	2900	81	2430	4470	3180
APR-SEP	1870	2900	3320	81	3840	4970	4010
CLARK FORK at Thompson Falls (1.3)							
APR-JUL	5730	7790	8730	88	9810	11700	10400
APR-SEP	5290	8510	9190	84	10600	12900	13400
CLARK FORK at Thompson Falls (1.4)							
APR-JUL	113	147	170	79	193	223	214
APR-SEP	126	154	170	79	215	282	240
CLARK FORK at Thompson Falls (1.5)							
APR-JUL	86	86	102	81	118	138	122
APR-SEP	71	71	111	79	136	149	138
CLARK FORK at Whitehouse Bridge (1.6)							
APR-JUL	1000	8160	2430	81	10500	12700	11700
APR-SEP	8200	7720	10400	81	11600	14300	12410

The 10%, 50%, and 90% chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) The values listed under the 10% and 90% chance of exceeding are generally 94 and 95 recurrence levels.

(2) The value is natural flow; actual flow may be affected by upstream water management.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
CLARK FORK ab Missoula							
APR-JUL	860	1090	1240	83	1390	1620	1487
APR-SEP	995	1240	1410	84	1580	1830	1681
CLARK FORK b1 Missoula							
APR-JUL	1690	2040	2280	82	2520	2870	2788
APR-SEP	1550	2080	2560	83	3130	3590	3099
CLARK FORK at St. Regis (1)							
APR-JUL	1510	2530	2990	81	3450	4470	3686
APR-SEP	1670	2800	3320	81	3840	4970	4095
CLARK FORK nr Plains (1,2)							
APR-JUL	5730	7790	8730	84	9670	11700	10450
APR-SEP	6290	8560	9590	84	10600	12900	11470
THOMPSON nr Thompson Falls							
APR-JUL	113	147	170	79	193	225	214
APR-SEP	126	164	190	79	215	255	240
PROSPECT CK at Thompson Falls							
APR-JUL	66	88	102	83	116	138	123
APR-SEP	73	96	111	84	126	149	132
CLARK FK at Whitehorse Rpd (1,2)							
APR-JUL	6010	8380	9450	81	10500	12900	11730
APR-SEP	6840	9220	10400	81	11600	14500	12910

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
NOXON RAPIDS	335.0	310.4	308.4	314.2

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
UPPER CLARK FORK	40	96	94
BITTERROOT	12	92	93
LOWER CLARK FORK	14	86	94
CLARK FORK TOTAL	61	91	94
FLATHEAD	33	68	95
PEND OREILLE	94	80	94

JEFFERSON RIVER BASIN as of February 1, 1992

Mountain precipitation was about 40 percent of average during January. Cumulative precipitation amounts since October 1 now stand at about 95 percent of average. Basin snowpacks dropped significantly from the figures reported a month ago. Snowpack conditions are now near to a little below average on the Boulder, Big Hole and Ruby River Basins while the Beaverhead River Basin report below average conditions. High elevation snowpacks are generally near average while the low elevation snowpacks are below average. Soils under the snowpack are drier than normal. Reservoir storage levels are below to well below average. Spring and summer streamflows are forecast to be below average on the Red Rock and Beaverhead River Basins and near average elsewhere. Surface Water Supply Indexes (SWSIs) range from -1.7 on the Beaverhead River to -0.4 on the Boulder River Basin.

BEAVERHEAD RIVER near Helena (2)								
APR-JUL	45	107	130	87	100	232	175	
APR-SEP	81	133	182	90	213	363	204	
RED ROCK RIVER near Elgin								
APR-JUL	31	18	40	38	50	109	33	
APR-SEP	63	33	67	92	211	175	75	
BIG HOLE RIVER near Helena								
APR-JUL	475	565	625	50	705	835	545	
APR-SEP	475	605	650	90	775	805	695	
BOULDER RIVER near Boulder								
APR-JUL	75	66	37	70	100	126	85	
APR-SEP	61	85	38	57	105	113	51	
WYOMING RIVER near Harrison								
APR-JUL	14.1	10.4	16.0	24	19.2	26	17.2	
APR-SEP	4.4	21.0	26.7	31	21	38	20	
JEFFERSON RIVER near Three Forks (3)								
APR-JUL	409	781	975	100	1135	1401	835	111
APR-SEP	420	810	1140	100	1195	1600	1005	101

* 10%, 20%, 30%, and 40% chance of exceeding the indicated flow rate. The actual flow will depend on the amount of snowmelt in the basin.

The average is computed for the 1951-1990 time period.

(1) - The values listed under the 10% and 20% chance of exceeding flow are based on the 1951-1990 time period.

(2) - The value in column flow - actual flow may be affected by upstream water management.

JEFFERSON RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<--- Drier ---		Future Conditions		--- Wetter --->		
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
RED ROCK RIVER near Monida (2)							
APR-JUL	43	68	85	88	102	127	97
APR-SEP	48	76	95	90	114	142	105
BEAVERHEAD RIVER near Grant (2)							
APR-JUL	23	78	115	87	152	205	132
APR-SEP	33	97	140	90	183	245	155
BEAVERHEAD RIVER at Barratts (2)							
APR-JUL	45	107	150	87	193	255	172
APR-SEP	61	133	182	90	230	305	203
RUBY RIVER near Alder							
APR-JUL	51	68	80	96	92	109	83
APR-SEP	63	83	97	98	111	131	99
BIG HOLE RIVER near Melrose							
APR-JUL	425	545	625	98	705	825	641
APR-SEP	475	605	690	99	775	905	697
BOULDER RIVER near Boulder							
APR-JUL	38	64	82	96	100	126	85
APR-SEP	41	69	88	97	107	136	91
WILLOW CREEK near Harrison							
APR-JUL	4.1	10.5	14.8	84	19.1	26	17.7
APR-SEP	4.4	11.6	16.5	83	21	29	20
JEFFERSON near Three Forks (2)							
APR-JUL	505	785	975	106 104	1170	1440	920 935
APR-SEP	620	930	1140	114 111	1350	1660	1003 1027

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

JEFFERSON RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LIMA	84.0	11.8	12.0	33.4
CLARK CANYON	255.6	109.6	85.6	144.7
RUBY RIVER	38.8	25.1	20.0	23.8

JEFFERSON RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
BEAVERHEAD	18	156	83
RUBY	5	127	97
BIGHOLE	13	129	95
BOULDER	13	135	104
JEFFERSON	41	137	90

JEFFERSON RIVER near Dardanelle (1)

APR-JUN	305	565	170	97	355	435	580
APR-JUL	465	430	430	48	510	310	430

JEFFERSON RIVER near Dardanelle (2)

APR-JUL	515	585	530	75	575	345	565
APR-JUN	480	725	510	97	555	960	535

* 50%, 75%, 90%, and 100 chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 5% chances of exceeding are actually 5% and 1% exceedance levels.

(2) - The value is recorded flow - actual flow may be affected by upstream water management.

MADISON RIVER BASIN as of February 1, 1992

Mountain precipitation during January was about 30 percent of average. Cumulative precipitation since October 1 now stands at about 90 percent of average. Basin snowpack figures show a significant drop from those reported a month ago. Snowpack conditions are generally below average. Isolated high elevation areas in the Gravelly Mountains and in the south end of the Madison Mountain Range have near average snowpacks. Soils under the snowpack are drier than normal. Reservoir storage is near average in Hebgen Lake. Spring and summer streamflows are forecast to be slightly below average. The Surface Water Supply Index (SWSI) for the Madison River Drainage is -0.8.

MADISON RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)	
MADISON RIVER near Grayling (2)							
APR-JUL	305	345	370	97	395	435	380
APR-SEP	405	450	480	99	510	555	486
MADISON RIVER near McAllister (2)							
APR-JUL	515	585	630	95	675	745	662
APR-SEP	680	755	810	97	865	940	831

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

MADISON RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
ENNIS LAKE	41.0	29.6	30.7	34.0
HEBGEN LAKE	377.5	247.1	257.5	246.8

MADISON RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
MADISON above HEBGEN	10	113	81
LOWER MADISON	7	112	92
MADISON	17	113	85

MADISON RIVER near Gateway

APR-JUL	310	460	390	88	430	470	461
APR-JUL	340	420	455	88	480	540	510

ELK RIVER near Brecken

APR-JUL	14.7	17.9	20	87	22	24	23
APR-JUL	18.0	21	23	88	25	28	26

Snake River near Brecken

APR-JUL	22	27	31	81	33	40	36
APR-JUL	26	31	35	83	38	46	42

MADISON RIVER at Logan

APR-JUL	250	350	410	84	470	570	497
APR-JUL	300	410	480	83	540	630	581

80%, 70%, 60%, and 50% chances of exceeding are the probabilities that the annual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) The values listed under the 10% and 50% Chance of Exceeding are actually 10 and 50 exceedance levels.

(2) The value is natural flow - actual flow may be affected by upstream water management.

GALLATIN RIVER BASIN as of February 1, 1992

Mountain precipitation during January was about 40 percent of average. Cumulative precipitation since October 1 now stands at about 80 percent of average. Basin snowpack conditions have deteriorated significantly since January 1 and are now below average over most of the basin. Soils under the snowpack are drier than normal. Storage in Middle Creek Reservoir is below average. Streamflows for the spring and summer period are forecast to be below average. The Surface Water Supply Index (SWSI) for the Gallatin River Basin is -1.2.

GALLATIN RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<== Drier == Future Conditions == Wetter ==>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
GALLATIN RIVER near Gateway							
APR-JUL	310	360	390	88	420	470	441
APR-SEP	370	420	455	88	490	540	518
E & W FK HYALITE CK nr Bozeman							
APR-JUL	14.7	17.9	20	87	22	25	23
APR-SEP	18.0	21	23	88	25	28	26
HYALITE CREEK near Bozeman (2)							
APR-JUL	22	27	31	86	35	40	36
APR-SEP	26	31	35	83	39	44	42
GALLATIN RIVER at Logan							
APR-JUL	260	355	415	84	475	570	497
APR-SEP	325	415	480	83	545	635	581

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

GALLATIN RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
MIDDLE CREEK	8.0	2.8	4.9	3.6

GALLATIN RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
UPPER GALLATIN	6	105	87
EAST GALLATIN	7	109	83
GALLATIN	12	109	86

MAINSTEM MISSOURI RIVER BASIN as of February 1, 1992

Mountain precipitation was about 55 percent of average during January. Cumulative precipitation since October 1 now stands at about 90 percent of average. Snowpack conditions in the Missouri Headwater River Basins are generally below average. Snowpacks on the tributary streams below Toston are generally near average except on the Smith, Judith and Musselshell Basins which are below average. Mountain soils are generally drier than normal. Storage in Canyon Ferry Reservoir is near average. Spring and summer streamflows are forecast to be near to below average on the Missouri Headwater streams, below average on the central-Montana Headwater streams, below average on the central Montana tributaries and near average on the northside tributaries and the Missouri Main Stem. Surface Water Supply Indexes (SWSIs) range from -0.9 on the Missouri below Canyon Ferry to -0.6 on the Missouri above Fort Peck.

MISSOURI RIVER at Fort Benton (2)

APR-JUL	1875	2450	3500	97	1250	4170	3087
APR-JUL	2100	2700	3650	92	1075	4150	3711

MISSOURI RIVER at St. Albans (9)

APR-JUL	175	305	615	75	325	870	4671
APR-JUL	200	350	675	98	730	925	891

MISSOURI RIVER at Virgelle (2)

APR-JUL	1720	2700	3480	97	1170	3180	3109
APR-JUL	2380	3120	4080	97	4430	3260	3207

MISSOURI RIVER near Landreth (1)

APR-JUL	1000	1970	3170	97	1170	3740	3137
APR-JUL	2410	3090	4370	92	1170	4610	4189

MISSOURI RIVER near Fort Peck (2)

APR-JUL	1870	2400	3480	97	1780	4000	4011
APR-JUL	2090	2910	4000	99	5130	4970	4367

LAKE TACAMAHOCA Inflow (2)

APR-JUL	4750	6750	10400	108	6000	10000	11000
APR-JUL	5020	6850	11000	97	7000	10000	11000

1. APR, MAY, JUNE, and JULY amounts of exceeding are the probabilities that the annual flow will exceed the values in the table.

The average is computed for the 1951-1990 base period.

(1) - The values listed under the APR and JUL Headers of Exceedance are actually 20 and 70% exceedance levels.

(2) - The value is normal flow - usually 10% above the 10% exceedance level.

MAINSTEM MISSOURI RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)	
MISSOURI RIVER at Toston (2)							
APR-JUL	1340	1740	2020	97	2300	2700	2075
APR-SEP	1520	1960	2260	94	2560	3000	2411
PRICKLY PEAR CREEK nr Clancy							
APR-JUL	2.3	11.3	18.0	78	25	35	23
APR-SEP	3.0	14.0	22	81	30	41	27
SUN RIVER at Gibson Dam (2)							
APR-JUL	295	380	440	92	500	585	478
APR-SEP	340	430	490	93	550	640	526
MISSOURI RIVER at Fort Benton (2)							
APR-JUL	1630	2450	3000	97	3550	4370	3087
APR-SEP	2120	2780	3430	92	3970	4750	3711
MARIAS RIVER near Shelby (2)							
APR-JUL	138	305	415	93	525	690	447
APR-SEP	290	390	475	98	730	925	487
MISSOURI RIVER at Virgelle (2)							
APR-JUL	1770	2790	3480	97	4170	5190	3595
APR-SEP	2280	3350	4080	97	4810	5860	4207
MISSOURI RIVER near Landusky (2)							
APR-JUL	1800	2970	3770	97	4570	5740	3897
APR-SEP	2450	3690	4530	99	5370	6610	4589
MISSOURI RIVER blw Fort Peck (2)							
APR-JUL	1670	2980	3880	97	4780	6090	4015
APR-SEP	2590	3310	4440	99	5230	6610	4467
LAKE SAKAKAWEA Inflow (2)							
APR-JUL	6330	8750	10400	103	12000	14500	10120
APR-SEP	6920	8850	11000	97	12500	15300	11346

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

MAINSTEM MISSOURI RIVER BASIN
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
CANYON FERRY LAKE	2043.0	1488.0	1466.0	1596.0
HELENA VALLEY	9.2	4.9	4.4	4.7
LAKE HELENA	10.4	11.1	10.9	10.3
HAUSER & HELENA	61.9	63.6	63.1	61.3
HOLTER LAKE	81.9	80.9	81.2	72.9
FORT PECK LAKE (MAF)	18.9	11.8	10.4	14.9

MAINSTEM MISSOURI RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MISSOURI HEADWATERS	63	125	88
WEST SIDE MISSOURI	9	112	100
SMITH-BELT	5	86	86
MAINSTEM MISSOURI	14	99	94
SUN-TETON-MARIAS	7	62	96
JUDITH-MUSSELSHELL	8	96	85
MISSOURI above FORT PECK	82	108	89
MILK RIVER	9	64	89
MISSOURI in MONTANA	89	106	88
MISSOURI blw YELLOWSTONE	169	102	87

SMITH-JUDITH-MUSSELSHELL RIVER BASINS as of February 1, 1992

Mountain precipitation was about 60 percent of average during January. Cumulative precipitation since October 1 is about 90 percent of average. Basin snowpack figures have dropped from those reported a month ago. Snowpack conditions are below average except at the higher elevations of the Snowy Mountains near Lewistown where near average snowpack is reported. Soils under the snowpack have near to below average moisture content. Reservoir storage levels are below average in Smith River and Martinsdale Reservoirs and above average elsewhere. Spring and summer streamflows are now forecast to be below average. The Surface Water Supply Indexes (SWSIs) are -1.4 for the Smith River Basin and -0.1 on the Musselshell River Basin.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
SMITH RIVER nr Ft. Logan							
APR-JUL	14.0	36	50	81	65	86	62
APR-SEP	22	45	60	82	75	98	73
SHEEP CK nr White Sulphur Springs							
APR-JUL	9.6	12.3	14.1	78	15.9	18.6	18.1
APR-SEP	11.8	14.6	16.6	79	18.6	21	21
NF MUSSELSHELL near Delpine							
APR-JUL	1.9	3.1	4.0	83	4.9	6.1	4.8
APR-SEP	2.2	3.7	4.7	84	5.7	7.2	5.6
SF MUSSELSHELL abv Martinsdale							
APR-JUL	10.0	31	45	87	59	80	52
APR-SEP	13.0	34	49	88	64	85	56

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

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SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000AF) End of January

=====

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
SMITH RIVER	10.6	4.2	5.0	6.3
NEULAN CREEK		NO REPORT		
BAIR	7.0	4.9	2.7	3.8
MARTINSDALE	23.1	7.0	3.9	9.2
DEADMAN'S BASIN	72.2	58.4	33.5	43.0

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SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - February 1, 1992

=====

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
SMITH-BELT	5	86	86
JUDITH-MUSSELSHELL	8	96	85

=====

SUN-TETON-MARIAS RIVER BASINS as of February 1, 1992

Mountain precipitation was about 65 percent of average during January. Cumulative precipitation since October 1 now stands at about 90 percent of average. Snowpacks at the higher elevations along the Divide are near average while low elevation areas moving from the foothills onto the plains have below to well below average snowpack. Mountain soils have near average moisture contents. Reservoir storage levels are generally near to above average. Streamflows for the spring and summer months are forecast to be near to a little below average. Surface Water Supply Indexes (SWSIs) range from -0.3 on the Marias River to -1.0 on the Teton River Basin.

THE SWEETWATER CREEK at Browning (2)

APR-JUL	116	169	203	93	350	385	313
APR-SEP	131	186	220	96	375	370	323

BROWNING CREEK near Browning (3)

APR-JUL	83	80	98	96	116	141	104
APR-SEP	87	95	114	97	133	160	120

BOULEVARD CREEK Inflow at Dupuyer

APR-JUL	34	51	83	81	75	92	86
APR-SEP	45	67	73	86	87	103	80

BROWNING CREEK near Valtel

APR-JUL	9.1	7.0	16.3	97	22	37	13.3
APR-SEP	9.3	8.8	16.3	97	24	35	13.6

OUT BANK CREEK at Elk River

APR-JUL	59	68	80	92	92	110	87
APR-SEP	68	77	89	93	102	110	96

MARIAS RIVER near Shelby (2)

APR-JUL	138	303	413	91	925	830	547
APR-SEP	190	380	473	98	730	925	627

* 10%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values shown under the 10% and 50% chance of exceeding are actually 51 and 50% streamflow levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
SUN RIVER at Gibson Dam (2)							
APR-JUL	295	380	440	92	500	585	478
APR-SEP	340	430	490	93	550	640	526
TWO MEDICINE CREEK nr Browning (2)							
APR-JUL	116	169	205	95	240	295	215
APR-SEP	131	184	220	96	255	310	228
BADGER CREEK near Browning (2)							
APR-JUL	55	80	98	94	116	142	104
APR-SEP	68	95	114	95	133	160	120
SWIFT RESERVOIR Inflow nr Dupuyer							
APR-JUL	34	51	63	93	75	92	68
APR-SEP	45	63	75	94	87	105	80
DUPUYER CREEK near Valier							
APR-JUL	3.1	7.0	14.3	92	22	32	15.5
APR-SEP	3.5	8.4	16.0	92	24	35	17.4
CUT BANK CREEK at Cut Bank							
APR-JUL	50	68	80	92	92	110	87
APR-SEP	58	77	89	93	102	120	96
MARIAS RIVER near Shelby (2)							
APR-JUL	138	305	415	93	525	690	447
APR-SEP	290	390	475	98	730	925	487

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
GIBSON	99.1	45.8	48.0	44.2
PISHKUN	32.0	19.3	----	17.7
WILLOW CREEK	32.2	29.7	28.1	21.2
LOWER TWO MEDICINE LAKE	11.9	11.2	----	6.7
FOUR HORNS LAKE	19.2	13.7	----	12.5
SWIFT	30.0	14.6	19.0	15.3
LAKE FRANCES	112.0	84.7	68.3	69.6
LAKE ELWELL (TIBER)	1347.0	682.3	715.5	583.0

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
SUN-TETON	3	67	94
MARIAS	4	60	96
SUN-TETON-MARIAS	7	62	96

* 90%, 70%, 50%, and the chance of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1950-1970 base period.

(1) - The values listed under the 50% and 90% chance of exceeding are actually 44 and 48 respectively.

(2) - The value in column 4 - actual flow may be affected by upstream water management.

ST. MARY and MILK RIVER BASINS as of February 1, 1992

Mountain precipitation during January was about 80 percent of average. Since October 1 cumulative precipitation is about 90 percent of average. Basin snowpack conditions are near average in the headwater areas of the Milk and St. Mary Rivers. Below to well below average snowpacks are found in the Bear Paw Mountains and lower reaches of the basins. Reservoir storage levels are near to above average. Streamflows for the spring and summer period are forecast to be below average. The Surface Water Supply Indexes (SWSIs) for the Milk River USBR project water users is -1.5 while the SWSI for other users is -1.9.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - February 1, 1992

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
=====							
SWIFTCURRENT CK at Sherburne (2)							
APR-JUL	80	89	96	87	103	112	110
APR-SEP	95	105	112	88	119	129	128
ST. MARY RIVER near Babb (2)							
APR-JUL	270	315	345	85	375	420	404
APR-SEP	320	370	405	85	440	490	474
MILK RIVER at Eastern Crossing (2)							
MAR-SEP	62	78	93	106	131	192	88
MILK RIVER at Eastern Crossing							
MAR-SEP	181	230	275	107	385	515	258

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000AF) End of January

Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
LAKE SHERBURNE	64.3	25.0	41.8	24.0
FRESNO	127.0	63.8	50.7	51.2
BEAVER CREEK	3.5	2.8	2.7	1.8
NELSON	66.8	39.2	37.7	36.5

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - February 1, 1992

Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
MILK HEADWATERS	3	59	99
BEAR PAW	6	80	70
MILK RIVER	9	64	89
ST. MARY	4	60	94
ST. MARY and MILK	10	63	88
BOW RIVER in ALBERTA	12	54	89
OLDMAN RIVER in ALBERTA	4	84	115

UPPER YELLOWSTONE RIVER BASIN as of February 1, 1992

Mountain precipitation during January was only about 35 percent of average. Cumulative precipitation since October 1 now stands at about 85 percent of average. Basin snowpack conditions are generally below average with only isolated high elevation areas in the Absaroka and Crazy Mountain Ranges having near average snowpacks. Soil moisture conditions under the snowpack are generally near average. Storage in Cooney Reservoir is a little above average. Spring and summer streamflows are now forecast to be below average on most streams. The Surface Water Supply Indexes (SWSIs) range from -1.6 on the Yellowstone River above Livingston to -0.7 on the Shields River Basin.

COONEY RESERVOIR at Cooney Springs							
APR-JUL	1330	1380	1380	81	1530	1660	1603
APR-SEP	1330	1340	1670	86	1800	1990	1837
YELLOWSTONE RIVER near Livingston							
APR-JUL	1300	1480	1400	86	1730	1960	1815
APR-SEP	1380	1790	1932	86	2010	2280	2231
SHIELDS RIVER near Livingston							
APR-JUL	83	102	118	86	176	210	187
APR-SEP	84	115	138	87	193	230	214
BOZEMAN RIVER at Big Timber							
APR-JUL	330	390	330	89	572	630	595
APR-SEP	363	430	370	102	610	675	664
S. YELLOWSTONE RIVER near Bozeman (1)							
APR-JUL	86	98	88	87	84	77	81
APR-SEP	87	71	71	86	87	90	79
S. YELLOWSTONE RIVER at Absaroka (2)							
APR-JUL	130	413	478	85	515	620	498
APR-SEP	420	305	365	81	625	710	593
CLARK FORK RIVER near Big Sky							
APR-JUL	480	570	678	89	520	580	532
APR-SEP	485	478	623	89	575	645	590
YELLOWSTONE RIVER at Billings							
APR-JUL	1470	1813	1840	87	1880	2250	2177
APR-SEP	1950	1690	1860	79	2230	2720	2713

* 90%, 80%, 50%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 50% chance of exceeding are actually 20 and 8% exceedance levels.

(2) - The value is actual flow - actual flow may be affected by upstream water management.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<=== Drier === Future Conditions === Wetter ===>						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
YELLOWSTONE at Lake Outlet							
APR-JUL	345	420	470	82	520	595	573
APR-SEP	480	580	645	81	710	810	792
YELLOWSTONE at Corwin Springs							
APR-JUL	1120	1280	1390	86	1500	1660	1609
APR-SEP	1350	1540	1670	86	1800	1990	1937
YELLOWSTONE RIVER near Livingston							
APR-JUL	1300	1480	1600	86	1720	1900	1855
APR-SEP	1580	1790	1930	86	2070	2280	2241
SHIELDS RIVER near Livingston							
APR-JUL	49	102	139	86	176	230	162
APR-SEP	64	119	156	87	193	250	179
BOULDER RIVER at Big Timber							
APR-JUL	230	290	330	99	370	430	335
APR-SEP	265	330	370	102	410	475	364
W. ROSEBUD CREEK near Roscoe (2)							
APR-JUL	46	54	59	97	64	72	61
APR-SEP	62	71	76	96	82	90	79
STILLWATER RIVER nr Absarokee (2)							
APR-JUL	330	415	475	95	535	620	498
APR-SEP	420	505	565	95	625	710	593
CLARKS FORK RIVER near Belfry							
APR-JUL	360	430	475	89	520	590	532
APR-SEP	405	475	525	89	575	645	590
YELLOWSTONE RIVER at Billings							
APR-JUL	2470	2990	3340	93	3690	4210	3577
APR-SEP	2950	3490	3860	92	4230	4770	4211

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

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UPPER YELLOWSTONE RIVER BASIN

Reservoir Storage (1000AF) End of January

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Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
MYSTIC LAKE	21.0	4.0	3.6	8.5
COONEY	27.4	16.1	17.9	14.6

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UPPER YELLOWSTONE RIVER BASIN

Watershed Snowpack Analysis - February 1, 1992

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Watershed	Number of Data Sites	This Year as Percent of Last Year	Percent of Average
YELLOWSTONE ab LIVINGSTON	16	97	78
SHIELDS	6	120	89
BOULDER-STILLWATER	3	108	91
CLARK'S FORK-ROCK CREEK	10	105	90
YELLOWSTONE above BIGHORN	30	103	84

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LOWER YELLOWSTONE RIVER BASIN as of February 1, 1992

Mountain precipitation during January was only about 45 percent of average. Cumulative precipitation since October 1 is near average. Basin snowpack conditions range from about 80 percent of average on the Bighorn River Basin to about 95 percent on the Tongue and Powder River Drainages. Soil moisture conditions are near normal. Storage in Bighorn Lake is near average. Spring and summer streamflows are now forecast to be a little below average on the Bighorn and Little Bighorn River Basins and near average on the Tongue and Powder River Drainages. The Surface Water Supply Indexes (SWSIs) range from -1.2 on the Yellowstone River below the Bighorn River to +0.5 on the Powder River Basin.

APR-JUL	860	1060	1360	91	1410	2020	3540
APR-SEP	885	1310	1600	89	1620	2320	3380
LITTLE BIGHORN RIVER at Hardin (2)							
APR-JUL	30	90	130	93	170	230	340
APR-SEP	36	93	137	86	151	247	360
TONGUE RIVER near Decker (2)							
APR-JUL	103	170	225	95	240	325	395
APR-SEP	129	198	265	100	290	380	447
YELLOWSTONE at Miles City (2)							
APR-JUL	2910	3660	4670	86	5000	6130	8430
APR-SEP	3910	5090	5920	93	6200	7240	8107
POWDER RIVER at Moorhead							
APR-JUL	44	122	187	91	240	340	511
POWDER RIVER near Lodgepole							
APR-JUL	56	160	240	91	280	400	550
YELLOWSTONE RIVER at Sidney (2)							
APR-JUL	3270	4410	5190	91	5920	7710	8660
APR-SEP	4410	5980	6370	93	7180	8330	8214

90%, 70%, 50%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the values in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 5% chance of exceeding are actually 15 and 10% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - February 1, 1992

	<--- Drier --- Future Conditions --- Wetter --->						
Forecast Pt	Chance of Exceeding *						
Forecast	90%	70%	50% (Most Prob)	30%	10%		30 Yr Avg
Period	(1000AF)	(1000AF)	(1000AF) (% AVG.)	(1000AF)	(1000AF)		(1000AF)
YELLOWSTONE RIVER at Billings							
APR-JUL	2470	2990	3340	93	3690	4210	3577
APR-SEP	2950	3490	3860	92	4230	4770	4211
BIG HORN RIVER nr St. Xavier (2)							
APR-JUL	660	1060	1340	81	1620	2020	1645
APR-SEP	885	1310	1600	89	1890	2320	1794
LITTLE BIGHORN RIVER nr Hardin							
APR-JUL	30	90	130	93	170	230	140
APR-SEP	28	93	137	86	181	245	160
TONGUE RIVER near Decker (2)							
APR-JUL	103	170	215	95	260	325	227
APR-SEP	129	198	245	100	290	360	244
YELLOWSTONE at Miles City (2)							
APR-JUL	2910	3960	4670	86	5380	6430	5431
APR-SEP	3910	5050	5820	93	6590	7730	6281
POWDER RIVER at Moorhead							
APR-JUL	44	132	192	91	250	340	211
POWDER RIVER near Locate							
APR-JUL	56	160	230	91	300	405	252
YELLOWSTONE RIVER nr Sidney (2)							
APR-JUL	3270	4410	5190	91	5970	7110	5695
APR-SEP	4410	5580	6370	93	7160	8330	6814

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

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LOWER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000AF) End of January

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Reservoir	Usable Capacity	***** This Year	Usable Storage Last Year	***** Average
BIGHORN LAKE	1356.0	868.4	775.4	839.0
TONGUE RIVER		NO REPORT		

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LOWER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - February 1, 1992

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Watershed	Number of Data Sites	This Year as Last Year	Percent of Average
BIG HORN (Wyoming)	49	91	81
LITTLE BIGHORN	4	107	93
TONGUE RIVER (Wyoming)	14	101	94
POWDER RIVER (Wyoming)	12	99	95
YELLOWSTONE RIVER	90	98	85

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